

AJ

11/25/06

**Amendments to the Claims**

Please add new Claims 20-22. The Claim Listing below will replace all prior versions of the claims in the application:

**Claim Listing:**

*Not to enter* *Feb 1, 2006*

1. (Previously presented) A method of polymerizing an aromatic monomer, comprising combining an aromatic monomer with a water soluble hematin catalyst, wherein the hematin catalyst has been derivatized with one or more non-proteinaceous amphipathic groups.
2. (Original) The method of Claim 1, further comprising combining a peroxide initiator with the aromatic monomer and the derivatized hematin.
3. (Original) The method of Claim 2, further comprising a template, wherein the aromatic monomer aligns along said template and polymerizes to form a complex comprising the polymerized aromatic monomer and the template.
4. (Original) The method of Claim 3, wherein the template is a polyelectrolyte.
5. (Original) The method of Claim 4, wherein the polyelectrolyte is polyanionic.
6. (Original) The method of Claim 5, wherein the polyanionic polyelectrolyte is poly(styrene sulfonic acid) or a salt thereof.
7. (Original) The method of Claim 3, wherein the template is optically active.
8. (Original) The method of Claim 7, wherein the optically active template is an oligonucleotide or a polynucleic acid or a salt thereof.
9. (Original) The method of Claim 8, wherein the polynucleic acid is 2'-deoxyribonucleic acid or a salt thereof.